508-1 and 508-2. Collateral radio data link 507 and signaling links 508-1 and 508-2 can be different interfaces to radio 502-2 physically, or they can be the same interface. It will be clear to those skilled in the art how to combine collateral radio data link 507 and signaling links 508-1 and 508-2 into one interface. Each of the interfaces with radio 502-2 can be a serial interface or a parallel interface. It will be clear to those skilled in the art how to make and use a serial or parallel interface. If one or more of collateral radio data link 507 and signaling links 508-1 and 508-2 are serial, the serial interface characteristics can comprise SERDES, IEEE1394 style data/strobe encoding, or RFF(2,5) coding, in well-known fashion.

The signaling information that is exchanged between radio 502-1 and 502-2 can be represented in any of a variety of formats. Signals from radio 502-1 can be communicated to radio 502-2 along signaling link 508-1 via a single high or low electrical signal, one signal value per state, in well-known fashion. For example, when radio 502-1 wants to indicate that it is transmitting, it can set the transmitting indication signal line to "high" and maintain that signal value for as long as radio 502-1 is in the transmitting state. When radio 502-1 stops transmitting, it can reset the transmitting indication signal line to "low", and maintain that signal value for as long as radio 502-1 is not transmitting. Similarly, signals from radio 502-2 can be communicated to radio 502-1 along signaling link 508-2 via a single high or low electrical signal, one signal value per state, in well-known fashion.

Alternatively, signals can be communicated between radio 502-1 and radio 502-2 via a packet format (i.e., a format using blocks of data to represent information), as opposed to using individual electrical signal levels to directly represent information. For example, when radio 502-1 wants to indicate that it is transmitting, it can prepare and transfer a packet message to radio 502-2 indicating "transmitting" when the state change from "not transmitting" to "transmitting" occurs. When radio 502-1 stops transmitting, it can prepare and transfer a packet message to radio 502-2 indicating "not transmitting" when the state change from "transmitting" to "not transmitting" occurs. The packet message also specifies the type of message being sent, such as control (e.g., transmit inhibit, etc.), status (e.g., idle indication, etc.), or host interface-related (e.g., data message for radio 502-2 from host 501, etc.). The packet format can be transferred in full-duplex, bidirectional fashion between radios 502-1 and 502-2. It will be clear to those skilled in the art how to make and use a packet format to convey signals and to do so in full-duplex, bidirectional fashion.

FIG. 10 depicts signaling link 508-1 as comprising M lines and signaling link 508-2 as comprising N lines. This is for illustrative purposes only, since signaling links 508-1 and 508-2 can be combined with collateral radio data link 508 in practice. The values for M and N depend on several factors, including (in no particular order):

1. Whether each of signaling link 508-1 and 508-2 is a serial or parallel interface;
2. How wide the parallel interface is;
3. If communication is full-duplex, bidirectional;
4. If the information is sent in packet format; and
5. If collateral radio data link 507, signaling link 508-1, and signaling link 508-2 are combined into one interface.

Values for M and N are determined in well-known fashion. If the three links are combined into one serial interface that is full-duplex, bidirectional with packet format, the number of lines required by that interface is as little as two, consistent with the notion of low cost, low complexity.

It is to be understood that the above-described embodiments are merely illustrative of the present invention and that many variations of the above-described embodiments can be devised by those skilled in the art without departing from the scope of the invention. It is therefore intended that such variations be included within the scope of the following claims and their equivalents.

What is claimed is:

1. A telecommunications terminal comprising:

a first transmitter for transmitting a first data block through a communications band in accordance with an error-correction mechanism; and

a second transmitter for:

(i) preventing said first transmitter from outputting at least a portion of said first data block into said communications band while said second transmitter transmits a second data block through said communications band, and

(ii) allowing said first transmitter to output into said communications band before said error-correction mechanism for said first data block fails.

2. The telecommunications terminal of claim 1 wherein:

said second transmitter is also for transmitting a third data block when said first transmitter is in an idle mode; and

said third data block has a higher latency tolerance than said second data block.

3. The telecommunications terminal of claim 2 wherein said second transmitter receives a signal from said first transmitter that indicates said idle mode.

4. The telecommunications terminal of claim 1 wherein said error-correction mechanism is an automatic-repeat-request mechanism.

5. A telecommunications terminal comprising:

an IEEE 802.11 transmitter for wirelessly transmitting a frame in accordance with an 802.11 automatic-repeat-request error-correction mechanism; and

a Bluetooth transmitter for:

(i) preventing said IEEE 802.11 transmitter from transmitting at least a portion of said frame while said Bluetooth transmitter transmits a packet, and

(ii) allowing said IEEE 802.11 transmitter to transmit before said 802.11 automatic-repeat-request error-correction mechanism for said frame fails.

6. The telecommunications terminal of claim 5 wherein:

said Bluetooth transmitter is also for transmitting another packet when said IEEE 802.11 transmitter is in power-save mode; and

said other packet has a higher latency tolerance than said packet.

7. The telecommunications terminal of claim 6 wherein said other packet is an asynchronous connectionless link packet.

8. The telecommunications terminal of claim 6 wherein said Bluetooth transmitter receives a signal from said IEEE 802.11 transmitter that indicates said power-save mode.

9. A telecommunications terminal comprising:

a first transmitter for transmitting a first data block through a communications band in accordance with an error-correction mechanism;

a second transmitter for:

(i) preventing said first transmitter from outputting at least a portion of said first data block into said